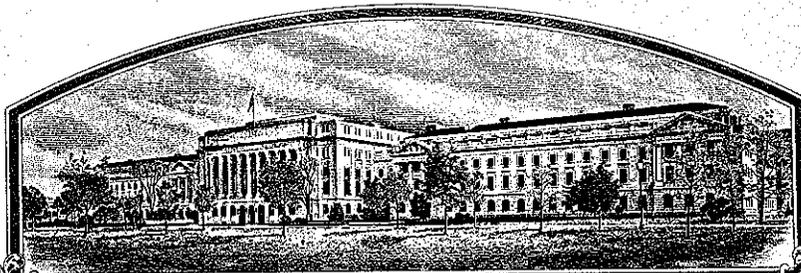


No.

8000130



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME;

Wendy Lou Jones

**Whereas, THERE HAS BEEN PRESENTED TO THE
Secretary of Agriculture**

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *seventeen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (7 U.S.C. 2321-2324, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SQUASH

'Royal Knight'



In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 16th day of October in the year of our Lord one thousand nine hundred and eighty.

Attest:

Lyman H. Lane
Commissioner

Plant Variety Protection Office
Gain Division

Wendy Lou Jones

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

INSTRUCTIONS: See Reverse.

1a. TEMPORARY DESIGNATION OF VARIETY Green Crookneck		1b. VARIETY NAME ROYAL Knight		FOR OFFICIAL USE ONLY	
2. KIND NAME Squash, Crookneck		3. GENUS AND SPECIES NAME Cucurbita - PePo		PV NUMBER 8000130	
4. FAMILY NAME (BOTANICAL) Cucurbita (Cucurbitaceae)		5. DATE OF DETERMINATION 1979		FILING DATE 6/6/80	
6. NAME OF APPLICANT(S) Wendy Lou Jones		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) 111 2nd Ave. N.W., Arlington Minnesota 55307		TIME 1:00 P.M.	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) —		10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION —		DATE 6/6/80 8/27/80	
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS: Wendy Lou Jones 111 2nd Ave N.W. Arlington Minnesota 55307		8. TELEPHONE AREA CODE AND NUMBER 1-612-964-2801		11. DATE OF INCORPORATION —	

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)

13B. Exhibit B, Novelty Statement.

13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)

13D. Exhibit D, Additional Description of the Variety.

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a). (If "Yes," answer 14B and 14C below.) YES NO

14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? YES NO

14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED? FOUNDATION REGISTERED CERTIFIED

15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? YES NO (If "Yes," give name of countries and dates.)

15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? YES NO (If "Yes," give name of countries and dates.)

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? YES NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

MAY 26/1980
 (DATE)

Wendy Lou Jones
 (SIGNATURE OF APPLICANT)

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

- 5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- 13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- 14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- 15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

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13 A Exhibit A: Origin and Breeding History of Royal Knight

Royal Knight was derived from a mutation obtained when golden crookneck squash seeds were irradiated. The mutation was first, positively, observed in the third generation. In the fourth generation the decision was made to increase the seed.

These squash were grown where hand pollination was the only source of pollen. This group of plants never received pollen from plants outside its own group. Royal Knight has been stable, in color, shape, and texture from the fifth generation on; this will be the eleventh generation (1980).

At no time were any of the squash of Royal Knight (of any generation) crossed with any green variety to enhance or alter its color.

Variants: Each year straight necks have been observed in the plots. They are larger (1 to $1\frac{1}{2}$ to 2 lbs. more than the crooknecks) and occur with a frequency of 1% or less.

Ms. Wendy Lou Jones
111 2nd Ave. NW
Arlington, MN. 55307

Information for Exhibit A and Exhibit B, Squash Application No. 8000130 'Royal Knight'

Exhibit A:

Eleven years ago, the seeds used--that 'Royal Knight' eventually was developed from-- were from a crookneck squash that was called Golden summer Crookneck, at that time. No special numeral designation or 'nick name' other than Golden was assigned to that crookneck.

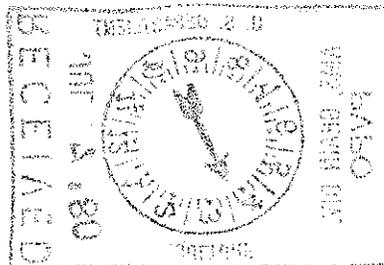
The information I gave in my application, under 'Exhibit A' explains the steps that were taken to obtain 'Royal Knight'.

Exhibit B:

MOST R/S 7/21/80

'Royal Knight' is similar in ~~shape and performance~~ to Golden summer Crookneck Squash.

'Royal Knight' differs in color and appearance. 'Royal Knight' is medium green and smooth at the 6" -8" market or 'eating size', whereas, Golden summer Crookneck squash is yellow and bumpy at the 6"-8" market or 'eating size'. 'Royal Knight', at maturity, is deep green (black-green) and bumpy. Whereas Golden summer Crookneck squash is deep yellow to gold and bumpy at maturity. 'Royal Knight' is also larger at maturity than Golden summer Crookneck squash is. 'Royal Knight's' average weight at maturity is 2 to 2½ pounds each.



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13 B Exhibit B: Novelty Statement

Royal Knight -- green crookneck squash-- is similar in shape and appearance to a golden crookneck squash, however, Royal Knight has a green skin and, upon completion of maturity, the skin becomes a deep black-green, and has a rind as hard as a hubbard winter squash.

OBJECTIVE DESCRIPTION OF VARIETY
PUMPKIN/SQUASH/GOURD (CUCURBITA SPP.)

NAME OF APPLICANT(S) Wendy Lou Jones	VARIETY NAME OR TEMPORARY DESIGNATION Royal Knight
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) 11 2nd Ave. N.W. Arlington, Minn. 55307	FOR OFFICIAL USE ONLY PVPO NUMBER 8000130

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. or) when number is either 99 or less or 9 or less.

1. SPECIES:

1 = LAGENARIA 2 = MAXIMA 3 = MIXTA 4 = MOSCHATA 5 = PEPO 6 = OTHER (Specify) _____

2. KIND (According to use):

1 = PUMPKIN 2 = SQUASH 3 = GOURD

3. TYPE:

1 = SUMMER (Vegetable Marrow) 2 = WINTER (Boston Marrow)

4. COTYLEDON:

MM. LONG MM. WIDE

Apex: 1 = TAPERED 2 = ROUNDED 3 = NOTCHED Veining: 1 = OBSCURE 2 = PLAINLY VISIBLE 3 = PROMINENT

1 = LIGHT GREEN 2 = GRAY-GREEN 3 = MEDIUM GREEN 4 = DARK GREEN

5. PLANT:

1 = BUSH 2 = SEMI-BUSH 3 = LONG VINES 1 = PILOSE 2 = PRICKLY 3 = GLABROUS

6. MAIN STEM:

1 = ROUND 2 = ANGLED MM. DIAMETER AT MID-POINT OF FIRST INTERNODE CM. AVERAGE LENGTH

AVERAGE NUMBER OF INTERNODES

7. LEAVES:

Shape: 1 = OVATE 2 = ORBICULAR 3 = RENIFORM 4 = RETUSE Shape: 1 = NOT LOBED 2 = SHALLOW LOBED 3 = DEEP LOBED

Margin: 1 = ENTIRE 2 = DENTICULATE 3 = DENTATE Margin: 1 = FLAT 2 = FRILLED

CM. WIDE CM. LONG Surface: 1 = SMOOTH 2 = BLISTERED

Dorsal Surface: } 1 = GLABROUS 2 = SOFT HAIRY 3 = BRISTLED
 Ventral Surface: }

1 = LIGHT GREEN 2 = GRAY-GREEN 3 = MEDIUM GREEN 4 = DARK GREEN 1 = NOT BLOTCHED 2 = BLOTCHED WITH GRAY

CM. PETIOLE LENGTH

8a. FLOWER - Pistillate:

CM. DIAMETER Ovary: 1 = DRUM-LIKE 2 = TURBINATE 3 = FUSIFORM Pedicel: CM. LENGTH

Margin: 1 = STRAIGHT 2 = CURVED Margin: 1 = PLAIN 2 = FRILLED Sepals: MM. WIDTH Sepals: MM. LENGTH
0 1 rfs 7/24/80 *0 4*

Color: 1 = WHITE 2 = LEMON YELLOW 3 = MID-YELLOW 4 = DEEP YELLOW 5 = ORANGE

8b. FLOWER - Staminate:

10 Sepals: MM LENGTH 03 Sepals: MM WIDTH 25 Pedicel: CM LENGTH

4 Color: 1 = WHITE 2 = LEMON YELLOW 3 = MID-YELLOW 4 = DEEP YELLOW 5 = ORANGE

9. FRUIT (Market Maturity)

20 CM LENGTH 02 CM WIDTH (Stem end) 07 CM WIDTH (Blossom end) 0227 GM AVERAGE WEIGHT

6 Shape according to variety type: 1 = ACORN 2 = BANANA 3 = BUTTERCUP 4 = BUTTERNUT 5 = CONNECTICUT FIELD 6 = CROOKNECK 7 = HUBBARD 8 = SCALLOP 9 = STRAIGHTNECK 10 = OTHER (Specify)

3 Apex: 1 = DEPRESSED 2 = FLATTENED

3 Base: 3 = ROUNDED 4 = TAPER POINTED

2 Ribs: 1 = NONE 2 = INCONSPICUOUS 3 = PROMINANT

1 Rib Furrows: 1 = SHALLOW 2 = MEDIUM DEEP 2 Rib Furrows: 1 = NARROW 2 = MEDIUM WIDE 3 = WIDE 1 Fruit Surface: 1 = SMOOTH 2 = FINE WRINKLE 3 = SHALLOWLY WAVY

1 Warts: 1 = NONE 2 = FEW 3 = MANY 02 Blossom Scar Button: 1 = DEPRESSED 2 = SLIGHTLY EXTENDED 3 = RAISED ACORN

10. RIND (Market Size - 8" Long)

01 MM THICKNESS AT MEDIAL 1 1 = SOFT 2 = HARD 3 = WOODY & TOUGH

1 COLOR PATTERN: 1 = REGULAR 2 = IRREGULAR

COLORS: (Select two when necessary, i.e. Grayish- Buff) 1 2 0 4 01 = WHITE 02 = CREAM 03 = YELLOW 04 = BUFF 05 = BROWN 06 = BRONZE 07 = GREEN 08 = ORANGE 08 = PINK 10 = RED 11 = BLUE 12 = GRAY 13 = BLACK 14 = OTHER (Specify)

07 SELF OR GROUND PATTERN:

Grid for pattern selection: STREAKS, STRIPES, SPOTS, BLOTCHES, LACE, OTHER (Specify)

LOCATION OF PATTERN COLORS:

1 = NOT SPECIFIC 2 = STEM END HALF 3 = BLOSSOM END HALF 4 = ACORN OR TORBAN 5 = OTHER (Specify) None

11. FLESH (Market Size 3" Long)

40 Thickness: MM BLOSSOM END 30 Thickness: MM MEDIAL 20 Thickness: MM STEM END

(Market size 8" long)

8000130

1 Texture: 1 = FINE 2 = GRANULAR 3 = LUMPY 4 = STRINGY

2 Texture: 1 = DRY 2 = MOIST 3 = JUICY

3 Quality: 1 = INEDIBLE 2 = GOOD 3 = EXCELLENT

2 Texture: 1 = SOFT 2 = FIRM 3 = BRITTLE

2 Flavor: 1 = INSIPID 2 = SLIGHTLY SWEET 3 = SWEET

- - 0 2 Color: (Choose from ripened colors above)

12. SEED CAVITY: (Sectioned apex to base) (Market size 8" long)

1 0 CM LENGTH

0 3 CM WIDTH

1 Location: 1 = CONFORMS TO FRUIT SHAPE 2 = NEAR APEX 3 = APEX ONLY

2 Placental Tissue: 1 = SPARSE 2 = MODERATELY ABUNDANT 3 = ABUNDANT

1 Center Core: 1 = INCONSPICUOUS 2 = PROMINANT

13. FRUIT STALKS (Market size 8" long)

0 4 CM LENGTH

0 1 CM DIAMETER

2 1 = ROUND 2 = IRREGULAR 1 1 = NOT TWISTED 2 = TWISTED

1 1 = NOT TAPERED 2 = TAPERED 2 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = CURVED

1 Texture: 1 = SOFT 2 = SPONGY 3 = HARD

2 Farrows: 1 = NONE 2 = SHALLOW 3 = DEEP

2 Surface: 1 = SMOOTH 2 = ROUGH 3 = SPINY

2 Attachment End: 1 = NOT EXPANDED 2 = SLIGHTLY EXPANDED 3 = EXPANDED

2 Detaches: 1 = EASILY 2 = WITH DIFFICULTY

3 Color: 1 = LIGHT GREEN 2 = MEDIUM GREEN 3 = DARK GREEN

14. SEEDS (Totally mature)

1 5 MM LENGTH

1 0 MM WIDTH

0 2 MM THICKNESS

1 Face Surface: 1 = SMOOTH 2 = WRINKLED 3 = SLIGHTLY PITTED 4 = SCALY 5 = CREASED

2 Color: 1 = WHITE 2 = CREAM 3 = BUFF 4 = BROWN

1 Luster: 1 = DULL 2 = GLOSSY

2 Margin: 1 = STRAIGHT 2 = CURVED 3 = TWISTED

1 Margin: 1 = ROUNDED 2 = WEDGE-LIKE

2 Separation from pulp: 1 = EASY 2 = MODERATELY EASY 3 = DIFFICULT

0 7 GMS PER 100 SEEDS

2 0 0 NO. SEEDS PER FRUIT

1 1 = NORMAL 2 = NAKED

15. DISEASE RESISTANCE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

0 POWDERY MILDEW

0 CUCUMBER MOSAIC

0 SQUASH MOSAIC

0 WATERMELON MOSAIC

0 OTHER (Specify) _____

16. INSECT RESISTANCE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

0 SQUASH BUG

0 SQUASH BORER

0 OTHER (Specify) _____

17. INDICATE A VARIETY MOST CLOSELY RESEMBLING THAT SUBMITTED FOR EACH CHARACTER

CHARACTER	VARIETY	CHARACTER	VARIETY
PLANT HABIT	Golden Crookneck	FRUIT SHAPE	Golden Crookneck
LEAF TYPE	Golden Crookneck	FRUIT COLOR	Zucchini
FLOWER TYPE	Golden Crookneck	CULINARY TYPE	Golden Crookneck

REFERENCES

- Currence, T. M. 1954. Vegetable Crops Breeding, Department of Horticulture, University of Minnesota.
- Tapley, W.T., Enzie, W.D. and Van Eseltine, G. P., 1937. Vegetables of New York: The Cucurbits 1 (4). J.B. Lyon Company, Albany, New York.
- USDA Farmness Bulletin No. 1086. 1969. Growing Pumpkins and Squashes.
- Whitaker, T.W. and G.N. Davies. Cucurbits. Interscience Publications, Inc., New York, N.Y.

13 D Exhibit D: Additional Description of Variety

Photo # 1 shows four (4) examples of the 8" market size and one (1) slightly beyond that stage at 11". The skin is smooth and tender with no lumps. The entire squash is edible at either stage shown here including skin and seeds. The 11" squash is slightly darker green than the 8" squash. The color darkens with age.

Photo " 2 shows one of the green crookneck squash plants and several examples of mature Royal Knight squash (ready to ripen for seed). At this stage the color becomes dark green and the length ranges between 12 and 14 inches in length (average), small ridges, or lumps, will appear sparsely on the squash. At this stage the seed cavity is still continuous with the flesh.

In photo # 3 there are four (4) examples of totally mature Royal Knight green crookneck squash. At this stage their skin becomes deep green-black with noticeable warts moderately spaced over the entire squash. The outer-most 5 mm becomes extremely hard, it is cut only with extreme difficulty. At this stage, it has been discovered, that this squash is good baked-- as a winter squash.

Photos # 4 and 5 show the interior of a totally mature Royal Knight. The green coloration from the skin can be seen to bleed into the rind--tinting the totally mature rind an off-green. The meat is golden yellow at this stage, with the seeds remaining in the body area-- leaving the neck meaty and seed free. Seed from Royal Knight green crookneck are slightly larger than the golden crookneck by 1 to 3 mm.

Though no statistical data is available from tests against squash mosaic or squash bugs, there has been no reported incidences of squash mosaic in any of the 10 generations grown. Last summer a seed companies report to me noted the lack of disease in any of their trial plants of Royal Knight. We have never had problems with insects on the plants or blossoms.



MARKET size
- Royal Knight -



ROYAL KNIGHT SQUASH PLANT & MATURE SQUASH



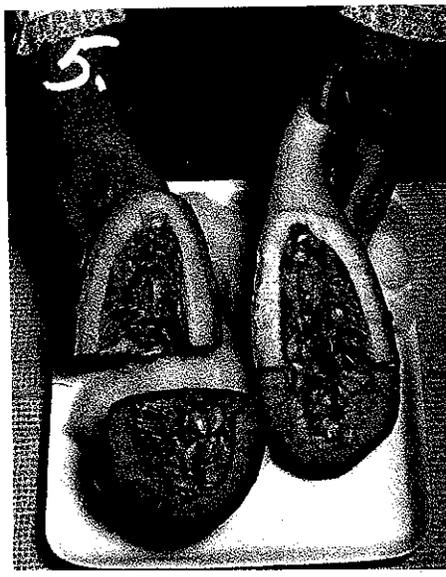
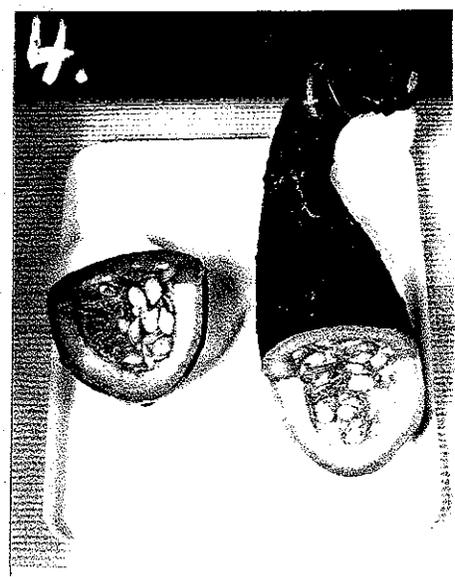
- MATURE EXHIBITS -



Exhibiting 1) MARKET size - among MATURE exhibits.



- MATURE Exhibits -



Mature seeds
- Royal Knight -